



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,614	04/21/2004	Daniel J. Devine	MAT-17	5212
21833	7590	10/04/2006		
PRITZKAU PATENT GROUP, LLC 993 GAPTER ROAD BOULDER, CO 80303			EXAMINER MOORE, KARLA A	
			ART UNIT	PAPER NUMBER

1763

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,614

Applicant(s)

DEVINE ET AL.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-96 is/are pending in the application.
- 4a) Of the above claim(s) 47-66 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-46 and 67-90 is/are allowed.
- 6) ☒ Claim(s) 1-7, 17, 18, 20, 21, 27, 37, 38, 40-43 and 90-96 is/are rejected.
- 7) ☒ Claim(s) 8-16, 19, 22-26, 28-36 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 57-66 appear to be a part of the non-elected species and therefore they were grouped with claims 47-56 of the non-elected species and were not examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-7, 17-18, 20-21, 27, 37-38, 40-43 and 90-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,441,615 to Mukai et al. in view of U.S. Patent No. 5,883,017 to Tepman et al.
5. Mukai et al. disclose an apparatus for processing workpieces in a treatment process substantially as claimed and comprising: a multi-workpiece chamber (Figure 1, 104) including at least two processing station, each of which is configured for exposing one of the workpieces to the treatment process; and a partition (111-113) that is configured to cooperate with said chamber.

Art Unit: 1763

6. However, Mukai et al. fail to teach the partition is disengagably removable from the chamber and thereafter re-engageable with the chamber for selectively dividing the processing stations from one another.

7. Tepman teaches providing individually removable and replaceable chamber parts for the purpose of facilitating cleaning and for the purpose of decreasing chamber turnaround time during chamber cleaning operations (abstract).

8. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided partitions disengagably removable from the chamber and thereafter re-engageable with the chamber for selectively dividing the processing stations from one another in Mukai et al. in order to facilitating cleaning and in order to decrease chamber turnaround time during chamber cleaning operations as taught by Tepman et al.

9. With respect to the structural limitations of claims 2 and 3, said partition and said chamber cooperate with one another to provide for only non-line-of-sight travel and the partitions define a plurality of circuitous paths between the processing stations (see Figures 1-3). With respect to the intended use recitations of claims 2 and 3, the courts have ruled that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

10. With respect to claims 4-6, the courts have ruled that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969).

11. With respect to claim 7, the partitions of cooperate with said chamber in a way that serves to equilibrate a process pressure between the first and second processing stations, if desired (see column 5, rows 16-47).

12. With respect to claims 17 and 18, said processing stations are arranged along a line oppositely across said partition with respect to one another, when installed in said chamber, and said partition plane is at least generally normal to said line. Also said multi-workpiece chamber includes a chamber bottom and an arrangement of chamber sidewalls extending from the chamber bottom for receiving a chamber lid

Art Unit: 1763

and said partition plane symmetrically divides the multi-workpiece chamber into equal halves (see Figures 1-3).

13. With respect to claim 20, the apparatus can be used to process semiconductor wafers.

14. With respect to claims 21, 27, 37-38 and 40, Mukai et al. and Tepman et al. disclose a method for processing workpieces in a system using a treatment process as described above.

15. With respect to claims 41-43, each of the structural recitation is addressed above.

16. With respect to claims 91-96, Mukai and Tepman et al. disclose the apparatus and a method processing semiconductor workpieces as claimed. An old, dirty soiled partition can be replaced with a modified partition arrangement. The modified arrangement being new and cleaned.

Allowable Subject Matter

17. Claims 8-16, 19, 22-26, 28-36 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. Regarding claims 1-16, 28-36, the following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest the apparatus as described above and said chamber further includes a chamber bowl that is configured for receiving a chamber lid in a closed position to seal a chamber interior when so received and said chamber bowl is configured for supporting said partition. In addition, no other properly combinable art was located to supply the missing teachings and requisite motivation for combination.

19. Regarding claims 19 and 39, the following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest the apparatus as described above and said chamber defines an exhaust port and including an exhaust arrangement in communication with said exhaust port for conducting an exhaust flow from the multi-workpiece chamber and including a flow divider arrangement which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber in a way which enhances uniformity of said treatment process for the first and second workpiece stations. In addition, no other properly combinable art was located to supply the missing teachings and requisite motivation for combination.

Art Unit: 1763

20. Regarding claims 22-26, the following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest the process generates process related products that are introduced into said chamber and wherein configuring includes causing said partition and said chamber to cooperate with one another to provide only for non-line-of-sight travel of certain ones of the process related products between said processing station, whereby the certain ones of the process related products, that are unable to travel non-line-of sight, therefore are unable to move between said processing stations when the partition is engaged with the chamber. In addition, no other properly combinable art was located to supply the missing teachings and requisite motivation for combination.

21. Claims 44-46 and 67-90 are allowed.

22. The following is an examiner's statement of reasons for allowance:

23. Regarding claims 44-46: The prior art of record fails to teach or fairly suggest the process generates process related products that are introduced into said chamber and wherein configuring includes causing said partition and said chamber to cooperate with one another to provide only for non-line-of-sight travel of certain ones of the process related products between said processing station, whereby the certain ones of the process related products, that are unable to travel non-line-of sight, therefore are unable to move between said processing stations when the partition is engaged with the chamber. In addition, no other properly combinable art was located to supply the missing teachings and requisite motivation for combination.

24. Regarding claims 67-90, the following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest the apparatus as described above and said chamber defines an exhaust port and including an exhaust arrangement in communication with said exhaust port for conducting an exhaust flow from the multi-workpiece chamber and including a flow divider arrangement which divides the exhaust flow into at least two exhaust flow portions that leave said multi-workpiece chamber in a way which enhances uniformity of said treatment process for the first and second workpiece stations. In addition, no other properly combinable art was located to supply the missing teachings and requisite motivation for combination. Any comments considered necessary by

Art Unit: 1763

applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

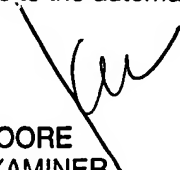
Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents 4764076; 5415729 and 5667592 also disclose partition arrangements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


KARLA MOORE
PRIMARY EXAMINER

Art Unit 1763
1 October 2006